3RT2016-2CP04-3MA0

Data sheet



Power contactor, AC-3 9 A, 4 kW / 400 V 2 NO + 2 NC, 230 V AC 50 / 60 Hz, with plugged on varistor, 3-pole, Size S00, Spring type terminal Captive auxiliary switch

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S00
product extension	
 function module for communication 	No
auxiliary switch	No
power loss [W] for rated value of the current	
 at AC in hot operating state 	0.9 W
 at AC in hot operating state per pole 	0.3 W
 without load current share typical 	4.2 W
insulation voltage	
• of main circuit with degree of pollution 3 rated value	690 V
 of auxiliary circuit with degree of pollution 3 rated value 	690 V
surge voltage resistance	
 of main circuit rated value 	6 kV
 of auxiliary circuit rated value 	6 kV
maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at AC	6,7g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at AC	10,5g / 5 ms, 6,6g / 10 ms
mechanical service life (switching cycles)	
 of contactor typical 	10 000 000
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
 during operation 	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %

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— at 24 V rated value	20 A
— at 110 V rated value	20 A
— at 220 V rated value	20 A
— at 440 V rated value	1.3 A
— at 600 V rated value	1 A
at 1 current path at DC-3 at DC-5	
— at 24 V rated value	20 A
— at 110 V rated value	0.1 A
 with 2 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	20 A
— at 110 V rated value	0.35 A
 with 3 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	20 A
— at 110 V rated value	20 A
— at 220 V rated value	1.5 A
— at 440 V rated value	0.2 A
— at 600 V rated value	0.2 A
operating power	
at AC-2 at 400 V rated value	4 kW
• at AC-3	
— at 230 V rated value	2.2 kW
— at 400 V rated value	4 kW
— at 500 V rated value	4 kW
— at 690 V rated value	5.5 kW
• at AC-3e	
— at 230 V rated value	2.2 kW
— at 400 V rated value	4 kW
— at 500 V rated value	4 kW
— at 690 V rated value	5 kW
operating power for approx. 200000 operating cycles	O KW
at AC-4	
at 400 V rated value	2 kW
at 690 V rated value	2.5 kW
operating apparent power at AC-6a	
 up to 230 V for current peak value n=20 rated value 	2 kVA
 up to 400 V for current peak value n=20 rated value 	3.6 kVA
 up to 500 V for current peak value n=20 rated value 	4.6 kVA
 up to 690 V for current peak value n=20 rated value 	5.9 kVA
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	1.3 kVA
• up to 400 V for current peak value n=30 rated value	2.4 kVA
• up to 500 V for current peak value n=30 rated value	3.1 kVA
• up to 690 V for current peak value n=30 rated value	4 kVA
short-time withstand current in cold operating state	
up to 40 °C	
 limited to 1 s switching at zero current maximum 	155 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	111 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	86 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	66 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 60 s switching at zero current maximum 	55 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	10 000 1/h
operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	750 1/h
at AC-3e maximum	750 1/h
• at AC-4 maximum	250 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
type or voltage or the control supply voltage	/ NO

control supply voltage at AC	
• at 50 Hz rated value	230 V
• at 60 Hz rated value	230 V
operating range factor control supply voltage rated value of magnet coil at AC	
● at 50 Hz	0.8 1.1
• at 60 Hz	0.85 1.1
design of the surge suppressor	with varistor
apparent pick-up power of magnet coil at AC	
• at 50 Hz	27 VA
• at 60 Hz	24.3 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.8
• at 60 Hz	0.75
apparent holding power of magnet coil at AC	
● at 50 Hz	4.2 VA
● at 60 Hz	3.3 VA
inductive power factor with the holding power of the coil	
● at 50 Hz	0.25
● at 60 Hz	0.25
closing delay	
• at AC	9 35 ms
opening delay	
• at AC	7 13 ms
arcing time	10 15 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2
instantaneous contact	
number of NO contacts for auxiliary contacts instantaneous contact	2
operational current at AC-12 maximum	10 A
operational current at AC-15	
at 230 V rated value	6 A
• at 400 V rated value	3 A
• at 500 V rated value	2 A
at 690 V rated value	1 A
operational current at DC-12	40.4
at 24 V rated value	10 A
at 48 V rated value at 60 V rated value	6 A
at 60 V rated value at 440 V rated value	6 A
at 110 V rated value at 125 V rated value	3 A
at 125 V rated value at 230 V rated value	2 A
at 220 V rated valueat 600 V rated value	1 A
	0.15 A
operational current at DC-13 • at 24 V rated value	6.0
at 24 V rated valueat 48 V rated value	6 A 2 A
at 48 V rated value at 60 V rated value	2 A
→ at oo v rateu value	
at 110 V rated value	1 Δ
at 110 V rated value at 125 V rated value	1 A
• at 125 V rated value	0.9 A
at 125 V rated valueat 220 V rated value	0.9 A 0.3 A
at 125 V rated valueat 220 V rated valueat 600 V rated value	0.9 A 0.3 A 0.1 A
 at 125 V rated value at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts	0.9 A 0.3 A
at 125 V rated value at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts UL/CSA ratings	0.9 A 0.3 A 0.1 A
at 125 V rated value at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor	0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)
 at 125 V rated value at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 	0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA) 7.6 A
 at 125 V rated value at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 	0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)
 at 125 V rated value at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 	0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA) 7.6 A

at 1101/20 V rated value		
* 10		·
at 200/280 V rated value at 200/280 V rated value 3 hp at 460/490 V rated value 5 hp at 575600 V rated value 7.5 hp 7.5 hp		1 hp
	•	
at 480/480 V rated value		
— at 575/900 V rated value contact rating of auxillary contacts according to U. Short-circuit protection design of the fuse link - with type of coordination 1 required — with type of assignment 2 required — with type of assignment 2 required gives 20A (890V.100kA), alm: 20A (890V.100kA), BS88: 35A (415V.80kA) gives 20A (890V.100kA), alm: 16A (890V.100kA), BS88: 20A (415V.80kA) gives 20A (890V.100kA), alm: 16A (890V.100kA), BS88: 20A (415V.80kA) gives 20A (890V.100kA), alm: 16A (890V.100kA), BS88: 20A (415V.80kA) gives 20A (890V.100kA), alm: 20A (890V.100kA), BS88: 20A (415V.80kA) gives 20A (890V.100kA), alm: 20A (890V.100kA), BS88: 20A (415V.80kA) gives 20A (890V.100kA), alm: 20A (890V.100kA), BS88: 20A (415V.80kA) gives 20A (890V.100kA), alm: 20A (890V.100kA), BS88: 20A (415V.80kA) gives 20A (890V.100kA), alm: 20A (890V.100kA), BS88: 20A (415V.80kA) gives 20A (890V.100kA), alm: 20A (890V.100kA), BS88: 20A (415V.80kA) gives 20A (890V.100kA), alm: 20A (890V.100kA), BS88: 20A (415V.80kA) gives 20A (890V.100kA), alm: 20A (890V.100kA), BS88: 20A (415V.80kA) gives 20A (890V.100kA), alm: 20A (890V.100kA), BS88: 20A (415V.80kA) gives 20A (890V.100kA), alm: 20A (890V.100kA), BS88: 20A (415V.80kA) gives 20A (890V.100kA), alm: 20A (890V.100kA), BS88: 20A (415V.80kA) gives 20A (890V.100kA), alm: 20A (890V.100kA), alm: 20A (890V.100kA), BS88: 20A (415V.80kA) gives 20A (890V.100kA), alm:	— at 220/230 V rated value	·
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for wards 10 mm • for wards	 at 460/480 V rated value 	5 hp
Short-circuit protection dosign of the fuse link or short-circuit protection of the main circuit with type of coordination 1 required with type of assignment 2 required gG: 35A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA) gG: 20A (590V,100kA), aM: 16A (690V,100kA), BS88: 20A (415V,80kA) gG: 20A (590V,100kA), aM: 16A (690V,100kA), BS88: 20A (415V,80kA) gG: 20A (590V,100kA), aM: 16A (690V,100kA), BS88: 20A (415V,80kA) gG: 20A (590V,100kA), aM: 16A (690V,100kA), BS88: 20A (415V,80kA) gG: 20A (590V,100kA), aM: 16A (690V,100kA), BS88: 20A (415V,80kA) gG: 20A (590V,100kA), aM: 16A (690V,100kA), BS88: 20A (415V,80kA) gG: 20A (590V,100kA), aM: 16A (690V,100kA), BS88: 20A (415V,80kA) gG: 20A (590V,100kA), aM: 20A (690V,100kA), BS88: 20A (415V,80kA) gG: 20A (590V,100kA), aM: 20A (690V,100kA), BS88: 20A (415V,80kA) gG: 20A (590V,100kA), aM: 20A (690V,100kA), BS88: 20A (415V,80kA) gG: 20A (590V,100kA), aM: 20A (690V,100kA), BS88: 20A (415V,80kA) gG: 20A (590V,100kA), aM: 20A (690V,100kA), BS88: 20A (415V,80kA) gG: 20A (590V,100kA), aM: 20A (690V,100kA), BS88: 20A (415V,80kA) gG: 20A (590V,100kA), aM: 20A (690V,100kA), aM:		·
design of the fuse link I or short-circuit protection of the main circuit		A600 / Q600
• for short-circuit protection of the main circuit — with type of accordination 1 required — with type of assignment 2 required — with type of assignment 2 required — to for short-circuit protection of the auxiliary switch • forwards • forward and backward by 4- 22.5° on vertical mounting surface: • safe-by-side mounting • forward and backward by 4- 22.5° on vertical mounting surface: • safe-by-side mounting • forward and backward by 4- 22.5° on vertical mounting surface: • safe-by-side mounting • forward and backward by 4- 22.5° on vertical mounting surface: • safe-by-side mounting • for min • safe-by-side mounting • for grounded parts • for grounded parts • for for grounded parts • for for grounded parts • for live parts • for live parts • for five parts • for for live parts • for main current circuit • for auxiliary and control circuit • for main current circuit • for mai	Short-circuit protection	
- with type of assignment 2 required - with type of assignment 2 required - with type of assignment 2 required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit spring the short protection of the auxiliary switch required - for short-circuit spring the short protection of the auxiliary switch required - for short-circuit spring the short protection of the auxiliary switch required - for short-circuit spring the short protection of the auxiliary switch required - for short-circuit spring the short protection of the auxiliary switch required - for short-circuit spring the short protection of the auxiliary switch required - for short-circuit spring-loaded terminals sprin		
with type of assignment 2 required 80kA) • for short-circuit protection of the auxiliary switch required Installation/ mounting foliaments mounting position	 for short-circuit protection of the main circuit 	
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position • side-by-side mounting • with side-by-side mounting • forwards • forwards • forman • powards • forman • forwards • forman • forman current circuit • for awaiting and control circuit • for main current circuit • for main contacts • solid • solid • solid or stranded • finely stranded with core end processing • finely stranded without core end processing • finely stranded with core end processing • finely stranded without core end pro	 — with type of coordination 1 required 	
required Installation/mounting/dimensions	 — with type of assignment 2 required 	
# # # # # # # # # #		gG: 10 A (500 V, 1 kA)
fastening method screw and shape-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 side-by-side mounting width depth required spacing • with side-by-side mounting — forwards — upwards — upwards — at the side — downwards — the side — for grounded parts — forwards — the side — downwards — to mm — upwards — the side — downwards — the side — downwards — to mm — the side — downwards — to fire parts — forwards — upwards — to fire parts — forwards — the side — downwards — to fire parts — forwards — the side — downwards — to fire parts — forwards — the side — downwards — to fire parts — forwards — the side — downwards — the side — downwards — of mm — at the side — for main current circuit • for auxiliary and control circuit • for main current circuit • a contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • solid • stranded • finely stranded without core end processing • finely stranded without core end p	Installation/ mounting/ dimensions	
Side-by-side mounting Yes	mounting position	
e side-by-side mounting Yes height width 70 mm width 45 mm depth 121 mm required spacing • with side-by-side mounting • of nowards 10 mm — upwards 10 mm — downwards 10 mm — at the side 0 mm • for grounded parts 10 mm — forwards 10 mm — upwards 10 mm — downwards 10 mm — of mailitiary and control circuit spring-loaded terminals • for mailitury and control circuit spring-loaded terminals • at contactor for auxiliary contacts Spr	fastening method	
Neight 45 mm 45		· · · · · · · · · · · · · · · · · · ·
width 45 mm depth 121 mm required spacing • with side-by-side mounting • with side-by-side mounting 10 mm — forwards 10 mm — downwards 10 mm — at the side 0 mm • for grounded parts 10 mm — forwards 10 mm — at the side 6 mm — downwards 10 mm • for live parts 10 mm — forwards 10 mm — upwards 10 mm — downwards 10 mm — at the side 6 mm Connections/ Terminals type of electrical connection 6 mm • for main current circuit spring-loaded terminals • for main current circuit spring-loaded terminals • for main contacts Spring-type terminals • for main contacts Spring-type terminals • for main contacts 2x (0.5 4 mm²) — solid 2x (0.5 2.5 mm²) • for wide and the conductor cross-section for main contacts 2x (20 12) • solid 0.5 2.5 mm² • finely stranded with core end processing 0.5 2.5 mm² • finely stranded with core end processing 0.5 2.5 mm² • finely stranded with core en		
required spacing with side-by-side mounting — forwards — upwards — downwards — at the side — for grounded parts — forwards — upwards — upwards — 10 mm — orwards — 10 mm — orwards — 10 mm — orwards — upwards — 10 mm — upwards — 10 mm — orwards — 10 mm — orwards — upwards — orwards — upwards — downwards — 10 mm — orwards — or		
required spacing with side-by-side mounting — forwards — upwards — downwards — downwards — at the side of grounded parts — forwards — upwards — 10 mm of or grounded parts — forwards — upwards — 10 mm of or five parts — at the side — downwards — 10 mm of or live parts — for live parts — for live parts — forwards — upwards — 10 mm of or live parts — forwards — 10 mm of or live parts — forwards — upwards — 10 mm of or live parts — for surds — the side connections/ Terminals type of electrical connection of or auxiliary and control circuit of or auxiliary and control circuit of or auxiliary and control circuit of main current circuit of magnet coil type of connectable conductor cross-sections of magnet coil type of connectable conductor cross-sections of magnet coil type of stranded — solid — solid of stranded — finely stranded without core end processing of at AWG cables for main contacts solid stranded of hipely stranded with core end processing of inely stranded with core end processing of stranded of finely stranded with core end processing of stranded of finely stranded with core end processing of finely stranded without core end processing		
 with side-by-side mounting forwards upwards downwards 10 mm downwards 10 mm at the side o mm for grounded parts for grounded parts upwards upwards at the side 6 mm downwards 10 mm for live parts for live parts upwards upwards 10 mm odownwards 10 mm upwards downwards 10 mm downwards at the side 6 mm Connections/ Terminals Type of electrical connection for auxiliary and control circuit at contactor for auxiliary contacts of magnet coil Spring-loaded terminals et connectable conductor cross-sections for main contacts Spring-type terminals Type of connectable conductor cross-sections for main contacts solid solid or stranded finely stranded with core end processing at AWG cables for main contacts solid solid stranded finely stranded with core end processing stranded finely stranded with core end processing finely stranded with core end processing finely stranded with core end processing finely stranded without core end processing finely stran	•	121 mm
forwards upwards 10 mm downwards at the side 0 mm at the side 0 mm		
- upwards - downwards - at the side 0 mm • for grounded parts - forwards - upwards - at the side 10 mm - upwards - upwards - at the side 6 mm - downwards 10 mm • for live parts - forwards - forwards 10 mm • for live parts - forwards 10 mm - at the side - downwards 10 mm - upwards 10 mm - upwards 10 mm - at the side - downwards 10 mm - at the side - forwards - upwards 10 mm - at the side - forman contacts - at the side - for main current circuit • for auxiliary and control circuit • for auxiliary and control circuit • of magnet coil type of connectable conductor cross-sections • for main contacts - solid - solid or stranded - finely stranded with core end processing - at AWG cables for main contacts - solid - solid - solid - solid or stranded - finely stranded without core end processing - at AWG cables for main contacts - solid - solid - solid - solid - solid - solid - finely stranded without core end processing - at AWG cables for main contacts - solid - s		40
- downwards - at the side		
- at the side • for grounded parts - forwards - upwards - at the side - downwards • for live parts - forwards 10 mm • for live parts - forwards 10 mm • for live parts - downwards 10 mm - downwards 10 mm - downwards - upwards - downwards - at the side Connections/ Terminals type of electrical connection • for main current circuit • at contactor for auxiliary and control circuit • of magnet coil type of connectable conductor cross-sections • for main contacts - solid - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts • solid • stranded • finely stranded with core end processing • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • finely stranded without core end processing	·	
• for grounded parts — forwards — upwards — at the side — downwards — 10 mm • for live parts — forwards — upwards — upwards — 10 mm • for live parts — forwards — upwards — upwards — 10 mm — upwards — 10 mm — upwards — 10 mm — upwards — at the side — 6 mm Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit • for auxiliary and control circuit • of magnet coil type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing • at AVVG cables for main contacts • solid • stranded • finely stranded with core end processing connectable conductor cross-section for main contacts • solid • stranded • finely stranded with core end processing of inely stranded with core end processing • finely stranded without core end processing		
- forwards		0 mm
- upwards - at the side - downwards • for live parts - fornwards - for wards - upwards - downwards - downwards - downwards - downwards - downwards - at the side - downwards - at the side - domnections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coll type of connectable conductor cross-sections • for main contacts - solid - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts • solid • stranded • finely stranded with core end processing • finely stranded without core end processing	•	
- at the side		
- downwards • for live parts - forwards - upwards - upwards - downwards - at the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts - solid - solid or stranded - solid or stranded with core end processing • at AWG cables for main contacts • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • solid • stranded • stranded • finely stranded with core end processing • finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded without core end processing	·	
• for live parts — forwards — upwards — downwards — at the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded without core end processing • at AWG cables for main contacts • stranded • stranded • stranded • stranded • finely stranded with core end processing • finely stranded without core end processing		
forwards upwards upwards downwards at the side at the side Connections/ Terminals type of electrical connection for main current circuit for auxiliary and control circuit at contactor for auxiliary contacts of magnet coil type of connectable conductor cross-sections for main contacts solid solid solid or stranded finely stranded with core end processing finely stranded without core end processing at AWG cables for main contacts solid solid solid solid solid or stranded finely stranded without core end processing finely stranded without core end processing at AWG cables for main contacts solid		10 mm
- upwards - downwards - at the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts - solid - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts • solid • at Conductor cross-sections • for main contacts - solid - solid or stranded - finely stranded without core end processing • at AWG cables for main contacts • solid • stranded • stranded • finely stranded with core end processing • finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded without core end processing	·	40
- downwards - at the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts - solid - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts • solid • stranded • stranded • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded without core end processing		
Type of electrical connection In or main current circuit In or main contacts In or	•	
type of electrical connection • for main current circuit spring-loaded terminals • at contactor for auxiliary contacts Spring-type terminals • of main contacts • of main contacts • of magnet coil Spring-type terminals type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing — in the stranded without core end processing • at AWG cables for main contacts • solid • solid • solid • at AWG cables for main contacts • solid • stranded • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded without core end processing		
type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts • solid • stranded • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • at AWG cables for main contacts • solid • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded without core end processing		6 mm
• for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil **Spring-type terminals** **Type of connectable conductor cross-sections** • for main contacts • solid • solid or stranded • finely stranded without core end processing • at AWG cables for main contacts • solid • solid • solid • stranded • finely stranded with core end processing • at AWG cables for main contacts • solid • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded without core end processing	Connections/ Terminals	
 for auxiliary and control circuit at contactor for auxiliary contacts of magnet coil Spring-type terminals 2x (0.5 4 mm²) 2x (0.5 4 mm²) 2x (0.5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) connectable conductor cross-section for main contacts solid stranded finely stranded with core end processing finely stranded without core end processing 	type of electrical connection	
 at contactor for auxiliary contacts of magnet coil Spring-type terminals type of connectable conductor cross-sections for main contacts — solid — solid or stranded — finely stranded with core end processing — finely stranded without core end processing at AWG cables for main contacts at AWG cables for main contacts solid stranded stranded stranded finely stranded with core end processing of inely stranded with core end processing solid stranded finely stranded with core end processing finely stranded with core end processing finely stranded without core end processing 		
 of magnet coil Spring-type terminals type of connectable conductor cross-sections for main contacts solid solid or stranded finely stranded with core end processing finely stranded without core end processing at AWG cables for main contacts solid stranded stranded stranded finely stranded with core end processing 2x (0.5 2.5 mm²) 2x (20 12) connectable conductor cross-section for main contacts solid stranded finely stranded with core end processing finely stranded with core end processing finely stranded without core end processing 		spring-loaded terminals
type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • at AWG cables for main contacts • solid • stranded • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded without core end processing	 at contactor for auxiliary contacts 	Spring-type terminals
 for main contacts — solid — solid or stranded — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — the finely stranded without core end processing 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) connectable conductor cross-section for main contacts — solid — stranded — stranded — the finely stranded with core end processing — tinely stranded without core end processing — the finely stranded without core end processing — solid — stranded — stranded — the finely stranded without core end processing — the finely stranded without core end processing — solid — solid — solid — solid — solid — stranded — stranded — the finely stranded without core end processing — the finely stranded without core end processing — solid — stranded —	of magnet coil	Spring-type terminals
 — solid — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing — at AWG cables for main contacts ■ at AWG cables for main contacts ■ solid ■ stranded ■ stranded ■ finely stranded with core end processing ■ finely stranded without core end processing ■ finely stranded without core end processing ■ finely stranded without core end processing ■ 5 2.5 mm² ■ 5 2.5 mm² ■ 5 2.5 mm² ■ 6 2.5 mm² ■ 6 2.5 mm² ■ 6 2.5 mm² 	type of connectable conductor cross-sections	
 — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — at AWG cables for main contacts ■ oslid — stranded — stranded — finely stranded with core end processing — finely stranded with core end processing — finely stranded without core end processing 	• for main contacts	
 — finely stranded with core end processing — finely stranded without core end processing • at AWG cables for main contacts • solid • stranded • finely stranded with core end processing • finely stranded without core end processing 	— solid	2x (0.5 4 mm²)
 finely stranded without core end processing at AWG cables for main contacts connectable conductor cross-section for main contacts solid stranded finely stranded with core end processing finely stranded without core end processing finely stranded without core end processing finely stranded without core end processing 5 2.5 mm² 0.5 2.5 mm² 0.5 2.5 mm² 	— solid or stranded	2x (0,5 4 mm²)
 at AWG cables for main contacts connectable conductor cross-section for main contacts solid stranded finely stranded with core end processing finely stranded without core end processing finely stranded without core end processing 5 2.5 mm² 0.5 2.5 mm² 	 finely stranded with core end processing 	2x (0.5 2.5 mm²)
connectable conductor cross-section for main contacts • solid • stranded • finely stranded with core end processing • finely stranded without core end processing	 finely stranded without core end processing 	2x (0.5 2.5 mm²)
 contacts solid stranded finely stranded with core end processing finely stranded without core end processing finely stranded without core end processing 0.5 2.5 mm² 0.5 2.5 mm² 	at AWG cables for main contacts	2x (20 12)
 solid stranded finely stranded with core end processing finely stranded without core end processing 1.5 4 mm² 2.5 mm² 1.5 2.5 mm² 2.5 mm² 		
 stranded finely stranded with core end processing finely stranded without core end processing 0.5 2.5 mm² 0.5 2.5 mm² 		0.5 4 3
 finely stranded with core end processing finely stranded without core end processing 0.5 2.5 mm² 0.5 2.5 mm² 		
• finely stranded without core end processing 0.5 2.5 mm²		
connectable conductor cross-section for auxiliary		0.5 2.5 mm²
	connectable conductor cross-section for auxiliary	

contacts	
 solid or stranded 	0.5 4 mm²
 finely stranded with core end processing 	0.5 2.5 mm²
 finely stranded without core end processing 	0.5 2.5 mm²
type of connectable conductor cross-sections	
 for auxiliary contacts 	
— solid or stranded	2x (0,5 4 mm²)
 finely stranded with core end processing 	2x (0.5 2.5 mm²)
 finely stranded without core end processing 	2x (0.5 2.5 mm²)
 at AWG cables for auxiliary contacts 	2x (20 12)
AWG number as coded connectable conductor cross	
section	
for main contacts	20 12
for auxiliary contacts	20 12
Safety related data	
product function	
 mirror contact according to IEC 60947-4-1 	Yes
 positively driven operation according to IEC 60947- 5-1 	No
B10 value with high demand rate according to SN 31920	1 000 000
proportion of dangerous failures	
 with low demand rate according to SN 31920 	40 %
 with high demand rate according to SN 31920 	73 %
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
T1 value for proof test interval or service life according to IEC 61508	20 y
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
suitability for use	
 safety-related switching OFF 	Yes
Certificates/ approvals	

General Product Approval





Confirmation



<u>KC</u>



Functional

EMC Safety/Safety of Declaration of Conformity Test Certificates

Machinery



Type Examination Certificate





Special Test Certificate

Type Test Certificates/Test Report

Marine / Shipping













Marine / Shipping

other





Confirmation



Confirmation

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2016-2CP04-3MA0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2016-2CP04-3MA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RT2016-2CP04-3MA0

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

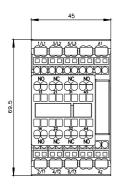
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2016-2CP04-3MA0&lang=en

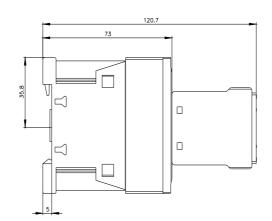
Characteristic: Tripping characteristics, I2t, Let-through current

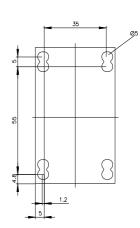
https://support.industry.siemens.com/cs/ww/en/ps/3RT2016-2CP04-3MA0/char

Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2016-2CP04-3MA0&objecttype=14&gridview=view1







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